UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,706	06/29/2001	Saburou Ikeda	F-11500	5839

466	7590	11/30/2006	

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ART UNIT	PAPER NUMBER
3628	

DATE MAILED: 11/30/2006

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PTO-90C (Rev. 10/03)

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

MAILED

Application Number: 09/893,706
Filing Date: June 29, 2001
Appellant(s): IKEDA, SABUROU

NOV 3 0 2006

GROUP 3600

Liam McDowell
<u>For Appellant</u>

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/27/06 appealing from the Office action

mailed 1/23/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-20, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Treyz et al (US 6,711,474), and further in view of Hassett (US 6,653,946).

As per claim 1, Treyz et al discloses:

a portable telephone on a car of a contractor of electronic toll payment service,

(col. 45, lines 50-54, wireless telephone);

base stations connected with said portable telephone, (Col. 11, lines 3-10, base

stations); and

a server connected with said base stations, (col. 17, line 66-Col. 18, line 3, and

Fig. 2, personal computer connected to the base station via wireless connection);

wherein said server comprises:

a first memory for storing locations of said base stations, (Col. 44, lines 15-22,

corresponding street address that is stored, w/ Col. 11, lines 51-56, shows that the

position of the base station is indicated by a GPS receiver at the station, and col. 44,

lines 15-20, shows that location information corresponding to the geographical position

using a local map database [detected using a GPS receiver] is stored in storage,

therefore, base station locations are stored in some type of memory since they are
detected by the GPS receiver);

a second memory for storing names of contractors or their car numbers and unit
toll for each section along a highway, (col. 78, lines 8-10 and lines 27-30, digital camera
capturing images of license plates in memory of personal computer, col. 55,lines 3-9,
toll information on region's requirements are stored);

a driving route identification unit for identifying a driving route of said portable
telephone/car on the basis of said locations of said base station which are connected
with said portable telephone, (Col. 59, lines 7-19, determined itineraries [or routes], in
this case, location data from a GPS receiver is used to determine driving routes, and the
GPS receiver determines locations based on the distance from a base station as shown
in col. 11, line 62-col. 12, line 5);

a toll charging unit for charging said portable telephone the calculated toll, (Col.
46, lines 35-41, toll payment occurs via wireless transmission, w/ col. 46, lines 8-12,
shows that a wireless transaction may involve a wireless telephone via wireless link
between the automobile personal computer and the entity involved in the transaction in
order to complete a transaction).

Treyz et al does not disclose a toll calculation unit for calculating a toll on the
basis of said unit toll and the identified driving route, but does disclose a GPS system
that tracks the location of an automobile in col. 48, lines 33-35, and also discloses
calculating the fee owed by the user at a parking facility in col. 48, line 67-col. 49, line 1.

However, Hassett discloses:

a toll calculation unit for calculating a toll on the basis of said unit toll and the

identified driving route, (Col. 4, lines 31-33, toll amount depends upon where the vehicle

enters and where it exits the tollway, in this case the driving route is represented by

where the vehicle enters and exits the tollway, and in this case, a toll schedule [which

represents a unit toll] corresponding to the roadway between where the vehicle exits

and enters is further identified as shown further along the paragraph in col. 4, lines 34-

44). Hassett discloses this limitation in an analogous art for the purpose of showing that

the toll calculated is based upon the route the vehicle has traveled.

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to calculate a toll on the basis of said unit toll and the identified

driving route with the motivation of showing that a toll is contingent upon the itinerary

the user uses.

As per claim 2, Treyz et al discloses:

a portable telephone on a car of a contractor of electronic toll payment service,

(col. 45, lines 50-54, wireless telephone);

base stations connected with said portable telephone, (Col. 11, lines 3-10, base

stations); and

a server connected with said base stations, (col. 17, line 66-Col. 18, line 3, and

Fig. 2, personal computer connected to the base station via wireless connection);

wherein:

said portable telephone comprises GPS unit for identifying its location, (col. 11,

lines 43-47, GPS)

said server comprises:

a second memory for storing names of contractors or their car numbers and unit toll for each section along a highway, (col. 78, lines 8-10 and lines 27-30, digital camera capturing images of license plates in memory of personal computer, col. 55,lines 3-9, toll information on region's requirements are stored);

a driving route identification unit for identifying a driving route of said portable telephone on the basis of said locations measured by said GPS unit, (Col. 59, lines 7-19, determined itineraries [or routes], Col. 59, lines 7-19, determined itineraries [or routes], in this case, location data from a GPS receiver is used to determine driving routes, and the GPS receiver determines locations based on the distance from a base station as shown in col. 11, line 62-col. 12, line 5);

a toll charging unit for charging said portable telephone the calculated toll, (Col. 46, lines 35-41, toll payment occurs via wireless transmission, w/ col. 46, lines 8-12, shows that a wireless transaction may involve a wireless telephone via wireless link between the automobile personal computer and the entity involved in the transaction in order to complete a transaction).

Treyz et al does not disclose a toll calculation unit for calculating a toll on the basis of said unit toll and the identified driving route, but does disclose a GPS system that tracks the location of an automobile in col. 48, lines 33-35, and also discloses calculating the fee owed by the user at a parking facility in col. 48, line 67-col. 49, line 1.

However, Hassett discloses:

a toll calculation unit for calculating a toll on the basis of said unit toll and the

identified driving route, (Col. 4, lines 31-33, toll amount depends upon where the vehicle

enters and where it exits the tollway, in this case the driving route is represented by

where the vehicle enters and exits the tollway, and in this case, a toll schedule [which

represents a unit toll] corresponding to the roadway between where the vehicle exits

and enters is further identified as shown further along the paragraph in col. 4, lines 34-

44). Hassett discloses this limitation in an analogous art for the purpose of showing that

the toll calculated is based upon the route the vehicle has traveled.

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to calculate a toll on the basis of said unit toll and the identified

driving route with the motivation of showing that a toll is contingent upon the itinerary

the user uses.

As per claims 3, 4, Treyz et al discloses:

Wherein said server comprises gate means for passing said car on the basis of

finishing said toll payment, (COL. 49, lines 1-3, gate opened).

As per claims 5, 6, Treyz et al discloses:

Wherein said server comprises notification means for notifying said portable

telephone of an exit lane on the basis of finishing said toll payment, (col. 37, lines 12-35,

wireless communication takes place with automobile personal computer [which is

shown to contain a phone] when user drifts out of lane).

As per claim 7, Treyz et al discloses:

Wherein said driving route identification unit identifies said driving route of said portable telephone on the basis of connection states between said mobile station and said base stations, (Col. 59,lines 7-19, starting point of driving user and destined location, w/ Col. 59, lines 7-19, determined itineraries [or routes], in this case, location data from a GPS receiver is used to determine driving routes, and the GPS receiver determines locations based on the distance from a base station as shown in col. 11, line 62-col. 12, line 5).

As per claim 8, Treyz et al discloses:

Wherein said base stations are connected with said portable telephone located at a tunnel, toll gate, or a service area along said driving route, (Col. 44, line 61-Col. 45, line 4, communication link established at toll collection facility).

As per claims 9, 10, Treyz et al does not disclose wherein said driving route identification unit identifies said driving route of said portable telephone on the basis of connection states between said portable telephone and a base station which includes a region where an exterior magnetic wave is shielded, but can be connected with said portable telephone/wherein said driving route is identified on the basis of the location stored in said first memory of the radio base station which includes section where exterior electromagnetic wave is shielded, but can be connected with said portable telephone, but does disclose the identification of a driving route in col. 59, lines 7-19.

However, Hassett discloses:

Wherein said driving route identification unit identifies said driving route of said portable telephone on the basis of connection states between said portable telephone

and a base station which includes a region where an exterior magnetic wave is shielded, but can be connected with said portable telephone/wherein said driving route is identified on the basis of the location stored in said first memory of the radio base station which includes section where exterior electromagnetic wave is shielded, but can be connected with said portable telephone, (Col. 2, lines 56-66, blanking field). Hassett discloses this limitation in an analogous art for the purpose of showing that the toll transceiver is shielded in certain situations.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to identify the driving route of said portable telephone on the basis of connection states between said portable telephone and a base station which includes a region where an exterior magnetic wave is shielded and wherein said driving route is identified on the basis of the location stored in said first memory of the radio base station which includes section where exterior electromagnetic wave is shielded, but can be connected with said portable telephone, but can be connected with said portable telephone with the motivation of blocking out transmission signals in certain areas.

As per claims 11 and 12, Treyz et al does not disclose wherein said toll charging means charges said calculated toll when a balance for said portable telephone is greater than said calculated toll, but does disclose the amount of a toll versus the user's current account in col. 55, lines 28-31.

However, Hassett discloses:

wherein said toll charging means charges said calculated toll when a balance for said portable telephone is greater than said calculated toll, (Abstract, lines 11-13, low

balance incremented for billing purposes). Hassett discloses this limitation in an analogous art for the purpose of showing that the balance must be higher in order to enforce billing.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to charge said calculated toll when a balance for said portable telephone is greater than said calculated toll with the motivation of charging the user an amount that he or she is able to pay.

As per claims 13 and 14, Treyz et al does not disclose wherein said toll charging means charges said calculated toll, when said portable telephone communicates with said base stations every prescribed time interval, but does disclose the amount of a toll versus the user's current account in col. 55, lines 28-31, and that information is gathered and provided to the server via wireless link at regular intervals in col. 80 lines 39-44..

However, Hassett discloses:

wherein said toll charging means charges said calculated toll, when said portable telephone communicates with said base stations every prescribed time interval, (Col. 2, lines 62-63, requires vehicle to transmit toll within a predetermined time limit). Hassett discloses limitation in an analogous art for the purpose of showing that there is a time limit on the collection of tolls.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to charge said calculated toll, when said portable telephone

communicates with said base stations every prescribed time interval with the motivation

of having a guaranteed time that tolls will be collected.

As per claims 15 and 16, Treyz et al discloses:

wherein said server further comprises a third memory for storing an ID of said

portable telephone, wherein said name of contractor and its car ID are identified by said

ID of said portable telephone, (col. 32, lines 30-34 and lines 45-53, license pate

information and user's name are used to identify the user's personal computer).

As per claims 17, 19,Treyz et al discloses:

Storing, in a memory of said server, names of contractors or their car numbers

and unit toll for each section along a highway, (col. 78, lines 8-10 and lines 27-30, digital

camera capturing images of license plates in memory of personal computer, col.

55,lines 3-9, toll information on region's requirements are stored);

identifying a driving route of said portable telephone on the basis of said

locations of said base station which are connected with said portable telephone, (Col.

59, lines 7-19, determined itineraries [or routes], w/Col. 59, lines 7-19, determined

itineraries [or routes], in this case, location data from a GPS receiver is used to

determine driving routes, and the GPS receiver determines locations based on the

distance from a base station as shown in col. 11, line 62-col. 12, line 5);

charging said portable telephone the calculated toll, (Col. 46, lines 35-41, toll

payment occurs via wireless transmission, w/ col. 46, lines 8-12, shows that a wireless

transaction may involve a wireless telephone via wireless link between the automobile

personal computer and the entity involved in the transaction in order to complete a

transaction).

Treyz et al does not disclose calculating a toll on the basis of said unit toll and

the identified driving route, but does disclose a GPS system that tracks the location of

an automobile in col. 48, lines 33-35, and also discloses calculating the fee owed by the

user at a parking facility in col. 48, line 67-col. 49, line 1.

However, Hassett discloses:

calculating a toll on the basis of said unit toll and the identified driving route, (Col.

4, lines 31-33, toll amount depends upon where the vehicle enters and where it exits the

tollway, in this case the driving route is represented by where the vehicle enters and

exits the tollway, and in this case, a toll schedule [which represents a unit toll]

corresponding to the roadway between where the vehicle exits and enters is further

identified as shown further along the paragraph in col. 4, lines 34-44). Hassett

discloses this limitation in an analogous art for the purpose of showing that the toll

calculated is based upon the route the vehicle has traveled.

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to calculate a toll on the basis of said unit toll and the identified

driving route with the motivation of showing that a toll is contingent upon the itinerary

the user uses.

As per claims 18, 20, Treyz et al discloses:

Storing, in a memory of said server, names of contractors or their car numbers

and unit toll for each section along a highway, (col. 78, lines 8-10 and lines 27-30, digital

camera capturing images of license plates in memory of personal computer, col.

55,lines 3-9, toll information on region's requirements are stored);

identifying a driving route of said portable telephone on the basis of said

locations measured by said GPS unit, (Col. 59, lines 7-19, determined itineraries [or

routes], w/ col. 11, lines 43-47, GPS, w/ Col. 59, lines 7-19, determined itineraries [or

routes], in this case, location data from a GPS receiver is used to determine driving

routes, and the GPS receiver determines locations based on the distance from a base

station as shown in col. 11, line 62-col. 12, line 5);

charging said portable telephone the calculated toll, (Col. 46, lines 35-41, toll

payment occurs via wireless transmission).

Treyz et al does not disclose calculating a toll on the basis of said unit toll and

the identified driving route, but does disclose a GPS system that tracks the location of

an automobile in col. 48, lines 33-35, and also discloses calculating the fee owed by the

user at a parking facility in col. 48, line 67-col. 49, line 1.

However, Hassett discloses:

calculating a toll on the basis of said unit toll and the identified driving route, (Col.

4, lines 31-33, toll amount depends upon where the vehicle enters and where it exits the

tollway, in this case the driving route is represented by where the vehicle enters and

exits the tollway, and in this case, a toll schedule [which represents a unit toll]

corresponding to the roadway between where the vehicle exits and enters is further

identified as shown further along the paragraph in col. 4, lines 34-44). Hassett

discloses this limitation in an analogous art for the purpose of showing that the toll

calculated is based upon the route the vehicle has traveled.

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to calculate a toll on the basis of said unit toll and the identified

driving route with the motivation of showing that a toll is contingent upon the itinerary

the user uses.

As per claim 23, Treyz et al discloses:

Storing, in a memory of said server, a name of contractor of said portable

telephone and a number of car of said contractor and tolls for each section that said

portable telephone travels along, (col. 78, lines 8-10 and lines 27-30, digital camera

capturing images of license plates in memory of personal computer, col. 32, lines 30-34

and lines 45-53, both license info and user's name used to uniquely identify the user's

personal computer);

identifying a driving route of said car on the basis of the location of a radio base

station connected with said portable telephone...(Col. 59, lines 7-19, determined

itineraries [or routes], w/ Col. 59, lines 7-19, determined itineraries [or routes], in this

case, location data from a GPS receiver is used to determine driving routes, and the

GPS receiver determines locations based on the distance from a base station as shown

in col. 11, line 62-col. 12, line 5);

calculating a toll based on a total number of tolls that said portable telephone has

passed; and

charging said portable telephone said calculated toll, (Col. 46, lines 35-41, toll payment occurs via wireless transmission, w/ col. 46, lines 8-12, shows that a wireless transaction may involve a wireless telephone via wireless link between the automobile personal computer and the entity involved in the transaction in order to complete a transaction).

Treyz et al does not disclose calculating a toll based on a total number of tolls that said portable telephone has passed, but does disclose a GPS system that tracks the location of an automobile in col. 48, lines 33-35, and also discloses calculating the fee owed by the user at a parking facility in col. 48, line 67-col. 49, line 1.

However, Hassett discloses:

calculating a toll based on a total number of tolls that said portable telephone has passed, (Col. 4, lines 31-33, toll amount depends upon where the vehicle enters and where it exits the tollway, also w/ col. 18, lines 21-54, shows that tolls are calculated depending on which toll field the IVC or in-vehicle toll processor component passes through or which toll field it encounters, in this case, a progressive toll is disclosed where the final toll is calculated based on the IVC first passing through a T0, then T1, then T2 field). Hassett discloses this limitation in an analogous art for the purpose of showing that the toll calculated is based upon the route the vehicle has traveled.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to calculate a toll on the basis of said unit toll and the identified driving route with the motivation of showing that a toll is contingent upon the itinerary the user uses.

Treyz does not disclose that said driving route includes a section where exterior

electromagnetic wave is shielded, but can be connected with said portable telephone,

but does disclose a GPS system that tracks the location of an automobile in col. 48,

lines 33-35, and also discloses calculating the fee owed by the user at a parking facility

in col. 48, line 67-col. 49, line 1.

However, Hassett discloses:

said driving route includes a section where exterior electromagnetic wave is

shielded, but can be connected with said portable telephone, (Col. 2, lines 56-66,

blanking field). Hassett discloses this limitation in an analogous art for the purpose of

showing that the toll transceiver is shielded in certain situations.

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to particularly identifying said driving route on the basis of the

location stored in said first memory of the radio base station which includes a section

where exterior electromagnetic wave is shielded, but can be connected with said

portable telephone with the motivation of blocking out transmission signals in certain

areas.

(10) Response to Argument

As per claim 1, the applicant argues that Treyz does not teach a memory that

stores the names of users having a contract for an electronic toll payment service *or* the

car numbers of the users, and also a toll calculation unit. However, since Treyz et al's

system is capable of storing car numbers through capturing, then storing the images of

license plates, as shown in Col. 78, lines 8-10 and lines 27-30, the storage device used

to store the images represents the memory, since the memory stores either the names

of the users having a contract or the car numbers. In this case, the examiner interprets

the contractor as the driver or user of the vehicle, and in Treyz, the images of the

license plates of the drivers or users of the vehicle under are stored. In this case, the

drivers purchase services related to toll collection, and therefore are in agreement to

use the toll service, and are therefore not just a random person. In addition, Tryez does

not specifically disclose a toll calculation unit, but does teach toll collection by way of a

wireless communications link-toll collection facility establishment as shown in Col. 54,

lines 30-51 where a user's account is debited. In this case, in order for the user's

account to be debited, it must be debited for a particular amount, meaning that some

type of calculation unit must be utilized. However, in the rejection, Treyz was combined

with Hassett to specifically point out the toll calculation unit. In Hassett, a toll calculation

unit for calculating a toll on the basis of a unit toll and the identified driving route is

disclosed in Col. 3, lines 62-67, where a toll processor that calculates a toll amount to

be debited is shown, along with Col. 4, lines 31-33 where it shows that the toll amount

depends upon where the vehicle enters and where it exits the tollway. Applicant argues

that the information for calculating a toll is stored in an in-vehicle memory of Hassett,

which is in contrast to the present invention's recited server, which allows for serving

plural vehicles fro a remote location. However, serving plural vehicles from a remote

location is described in the primary reference, Treyz, as disclosed above with respect to

the wireless communications link-toll collection facility establishment. Hassett was

introduced to disclose toll charging based on location of the vehicle, and when

combined with Treyz teaches the toll collection unit as described in the present

invention.

As per claims 2, 17-20, and 23, these claims include similar limitations to those of

claim 1, thereby making the analysis regarding claim 1 equally applicable to claims 2,

17-20 and 23.

The dependent claims are rejected at least for depending from the rejected
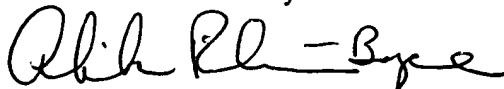
independent claims.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the

Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.
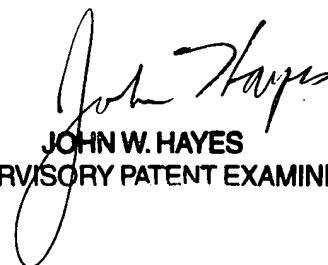
Respectfully submitted,

Akiba Robinson-Boyce

Conferees:

John Weiss

John Hayes

JOHN W. HAYES
SUPERVISORY PATENT EXAMINER